

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE --- REGION SIX

WILLAMETTE NATIONAL FOREST

MIDDLE FORK RANGER DISTRICT

Lane County, Oregon

PLANS FOR PROPOSED

MOSS THIN TIMBER SALE
ROADS

<u>ROAD NO.</u>	<u>LENGTH/MILES</u>	<u>CONST./RECONST.</u>
1926	2.98	Reconstruction
1927	11.18	Reconstruction

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Designed by:

<u>Zeke Langum</u>	<u>2/6/12</u>
Name	Date

Reviewed by:

<u>Sam Smith</u>	<u>2/17/12</u>
Name	Date

Reviewed by:

<u>Ken Robertson</u>	<u>3/12/12</u>
Asst. Development Engineer	Date

Recommended by:

<u>Walt</u>	<u>3-15-12</u>
Zone Engineer	Date

Approved by:

<u>Duan F. Bishop</u>	<u>3/15/12</u>
District Ranger	Date

<u>Forest Engineer</u>	<u>3/12/2012</u>
Forest Engineer	Date

ESTIMATE OF QUANTITIES ROAD 1926

2.98 Miles

Item Number	Description	Unit	Quantities	Remarks
20253	Removal of individual trees, miscellaneous: disposal of tops & limbs f & logs f	Each	13	
25104	Keyed riprap, class 6	Cubic Yard*	34	Upper Mossy Quarry, sorting is required. Located on Road 1932629, T19S, R5E, Sec 8, SW, NW.
30304	Road reconditioning, ditch	Mile	2.98	
43007	Skin patch hot asphalt concrete mixture	Ton	63.00	ODOT 1/2-inch dense graded HMAC, level II, asphalt cement PG 64-22, commercial source. 404.04, 404.06 and 404.07 will apply to this pay item.

* denotes contract quantities.

ESTIMATE OF QUANTITIES ROAD 1927

11.18 Miles

Item Number	Description	Unit	Quantities	Remarks
15101	Mobilization	Lump Sum	All	Includes equipment washing, temporary traffic control, measuring pipes, maintenance for access of 1932629 pit and fire protection measures.
15755	Erosion control & pollution prevention	Each	3	Dewatering
20253	Removal of individual trees, miscellaneous: disposal of tops & limbs f & logs f	Each	45	
20303	Removal of asphalt	Square Yard*	200	Disposal method a
20358	Removal of corrugated metal pipe, disposal method (a)	Each	3	
20404	Unclassified borrow, compaction method B, finishing method n/a	Cubic Yard*	50	Borrow source located at end of Road 1932629. Dispose of unsuitable material at designated disposal area's.
20419	Drainage excavation, type outlet ditch	Foot	75	
25101	Placed riprap, class 4	Cubic Yard*	2	Upper Mossy Quarry, sorting is required. Located on Road 1932629, T19S, R5E, Sec 8, SW, NW.
26201	Geogrid category 4	Square Yard*	167	Method B fill repairs. Utilize suitable excavated material for structural backfill.
30304	Road reconditioning, ditch	Mile	5.02	
30359	Roadway reconditioning, compaction E	Mile	6.16	
32203	Aggregate base, grading D, compaction method B	Cubic Yard*	369	Commercial source.
40401	Minor hot asphalt concrete	Ton	43.70	ODOT 1/2-inch dense graded HMAc, level II, asphalt cement PG 64-22, commercial source. Seal the edges of the completed patch with emulsified asphalt, and blot with fine sand.

ESTIMATE OF QUANTITIES ROAD 1927

11.18 Miles

Item Number	Description	Unit	Quantities	Remarks
43007	Skin patch hot asphalt concrete mixture	Ton	16.40	ODOT 1/2-inch dense graded HMAc, level II, asphalt cement PG 64-22, commercial source. 404.04, 404.06 and 404.07 will apply to this pay item.
60276A	24-inch corrugated aluminized steel pipe, 0.079-inch thickness, method B	Foot	78	Material source at end of Road 1932629.
60276B	36-inch corrugated aluminized steel pipe, 0.079-inch thickness, method B	Foot	42	Material source at end of Road 1932629.
60277	21-inch span x 15-inch rise corrugated aluminized steel pipe arch, 0.064-inch thickness, method B	Foot	46	
60403	Inlet, stand pipe	Each	3	See sheet 10.
62509	Mulching, dry method	Lump Sum	All	Government furnished, straw. Included for all roads.

* denotes contract quantities.

GENERAL NOTES

1. Remove all berms, existing or created, unless designated to remain, to allow drainage of water from the traveled way.
2. Salvage existing aggregate during culvert installation and use as bedding/backfill material around pipe.
3. The Contracting Officer will flag the disposal areas prior to placement of material. Smooth and shape material to drain. Disposal area's are located at MP 9.65 On road 1926 and MP 1.45 on Road 1933. Additional disposal area's may be designated by CO during reconstruction work.
4. Do not undercut backslopes when cleaning and/or reconstructing ditchline.
5. Spread Government furnished straw over disturbed soil at all culvert installations, disposal areas and other exposed soil work areas, not including ditches. Cover area's completely. Straw is stored at the Flat Creek Work Center, located on FS road 24, 2 miles east of the town of Oakridge. Contact the CO to arrange for pick up.
6. Recondition turnouts and curve widening with the basic roadbed, to dimensions existing on the ground.
7. Replace culverts when dry or during the instream work period.
8. Timing / date restrictions are included in C6.24 and C6.315 of the timber sale provisions and specifications.
9. Rebuild fills over pipes with a minimum of 1:1.5 fill slopes and 1' shoulders.
10. Aggregate grading D is available for purchase from the Forest Service. Stock pile location is on Road 2618, 0.10 miles past the 1927 junction. Mineral Permit is required.
11. Water level will be maintained in pond during pipe replacements at MP 2.12, 2.14 and 2.30 on Road 1927
12. Maintenance grading and ditch maintenance will be done before and after rip rap / borrow haul, on Road 1932 and Road 1932629. Brushing will be done before haul of rip rap / borrow material. All work is indirect to 15101.
13. On Road 1927, leveling course refers to aggregate placed to sustain original road elevation until asphalt is placed. Leveling course shall be maintained until asphalt placement. Remove 4" aggregate leveling course in preparation for asphalt placement. Leveling course aggregate will be transported and stockpiled as directed by CO. This work is indirect to 40401.
14. On all leveling courses, cones will be placed on all four corners with "Rough Road" signs on both sides of leveing course.
15. Set control points referencing existing centerline elevation/location and pipe invert elevation/location, for all pipe replacements and method B repairs. Control points will be approved by CO before beginning work, indirect to respective 602 and 262 pay itiems.

DRAINAGE LISTING														
M.P.	CMP	Outlet Pipe	As Built		Dimensions		Installation Details			Misc. Items				Remarks
					Size	Thick	Type	Grade	Skew	Gaskets	Head Wall	Splash Apron	Stand Pipe	
		Feet	M.P.	Feet	Inch	FE Inch		%	Deg		C.Y.	C.Y.	Each	
Road 1926														
2.01											34			
Road 1927														
2.12	38				24	0.079	#	#	#	X			X	14 gauge. Raise CMP 1 foot. Requires dewatering. Bevel inlet.
2.14	42				36	0.079	#	#	#	X			X	14 gauge. Lower CMP 6 inches. Requires dewatering. Bevel inlet.
2.30	40				24	0.079	#	#	#	X			X	14 gauge. Requires dewatering. Bevel inlet.
4.49												2		
6.84	46				21x15	0.064	3	2	*	X				16 gauge. Jack out inlet.
9.38														
THE ABOVE INSTALLATIONS INCLUDE CONNECTING BANDS														
NOTE: Standard pipe corrugation will be 2 2/3 inch X 1/2 inch unless otherwise noted.														
# Skew, grade and type shall match removed installation unless otherwise noted.														
* As staked on ground by C.O. or as called out in reconstruction summary.														
All pipes require gaskets, indirect to respective 602 pay item.														
Some installations of culverts may require additional excavation below grade line.														

RECONSTRUCTION SUMMARY ROAD 1926

Mile Point	Pay Item	Quantity	Unit	Work Description
0.00	30304	2.98	Mile	Begin project, Junction with Road 19. Begin reconditioning of ditch. Grubbing & disposal of all vegetation & root masses within the ditch is required unless otherwise noted in the work description. Haul material from ditch reconditioning, slough and slide removal to disposal area. Scatter all logs and woody debris from top of cutbank to the opposite road shoulder outside clearing limits. Remove dirt and vegetation from edge of asphalt according to subsection 303.04.
0.99				Grade and roll 300' section of aggregate road, according to subsection 303.06, indirect to 30304.
1.20				Junction left, Road 1926631.
1.50	43007	8.70	Ton	Skin patch 23' x 30' x 2" as marked on ground.
1.63	43007	36.70	Ton	Skin patch 110' x 23' x 2" as marked on ground with a 45' x 12' x 1.5" leveling course.
1.73	43007	5.80	Ton	Skin patch 23' x 20' x 2" (left lane) as marked on ground.
1.74	43007	1.50	Ton	Skin patch 23' x 5' x 2" (right lane) as marked on ground.
1.86	20253	3	Each	Fall 3 danger trees, left.
2.01	25104	34	C.Y.	Class 6 headwall, 9' high x 20' long x 5' thick.
2.53				Junction right, Road 1926636.
2.72				Junction right, Road 1926633.
2.98	20253	10	Each	Junction right Road 1927.
	43007	10.30	Ton	Fall 10 danger trees as marked by CO. Skin patch as marked by CO. End Project

RECONSTRUCTION SUMMARY ROAD 1927

Mile Point	Pay Item	Quantity	Unit	Work Description
0.00	30304	5.02	Mile	Begin project, Junction with Road 1926. Begin reconditioning of ditch. Grubbing & disposal of all vegetation & root masses within the ditch is required unless otherwise noted in the work description. Haul material from ditch reconditioning, slough and slide removal to disposal area. Scatter all logs and woody debris from top of cutbank to the opposite road shoulder outside clearing limits. Remove dirt and vegetation from edge of asphalt according to subsection 303.04.
0.07	20253	1	Each	Fall 1 danger tree, left.
0.16	20253	2	Each	Fall 1 danger tree, left and 1 danger tree, right.
0.18	20253	2	Each	Fall 1 danger tree, left and 1 danger tree, right.
0.25	20253	1	Each	Fall 1 danger tree, right.
0.38	20253	1	Each	Fall 1 danger tree, left.
0.49	20253	2	Each	Fall 1 danger tree, left and 1 danger tree, right.
0.90				Remove tree blocking culvert outlet, indirect to 30304.
1.25				Junction right, Road 1927633.
1.88				Junction right, Road 1927630.
1.93	20253	1	Each	Fall 1 danger tree, right.
1.99				Junction right, Road 1927017.
2.12	15755	1	Each	Dewater site.
	20303	27	S.Y.	Cut and remove existing asphalt.
	20358	1	Each	Remove existing CMP.
	60276A	38	Foot	Install 24" CMP. Raise pipe installation 1'. Bevel inlet 1:1.5.
				Backfill entire pipe excavation with borrow (indirect to 60276A).
	32203	10	C.Y.	Place 12 inches of crushed aggregate. Place 8 inches for structural section and 4 inches as leveling coarse.
	40401	5.90	Ton	Place 4 inches hot asphalt concrete, 15' top width.
	60403	1	Each	Install standpipe, see sheet 10.
2.14	15755	1	Each	Dewater site.
	20303	24	S.Y.	Cut and remove existing asphalt.
	20358	1	Each	Remove existing CMP.
	60276B	42	Foot	Install 36" CMP. Lower pipe installation 6". Bevel inlet 1:1.5.
				Backfill entire pipe excavation with borrow (indirect to 60276B).
	32203	9	C.Y.	Place 12 inches of crushed aggregate. Place 8 inches for structural section and 4 inches as leveling coarse.
	40401	5.40	Ton	Place 4 inches hot asphalt concrete, 15' top width.
	60403	1	Each	Install standpipe, see sheet 10.

RECONSTRUCTION SUMMARY ROAD 1927

Mile Point	Pay Item	Quantity	Unit	Work Description
2.15				Junction right, Road 1929.
2.26	20253	1	Each	Fall 1 danger tree, right.
2.30	20253	5	Each	Fall 5 danger trees, right.
	15755	1	Each	Dewater site.
	20303	24	S.Y.	Cut and remove existing asphalt.
	20358	1	Each	Remove existing CMP.
	60276A	40	Foot	Install 24" CMP. Bevel inlet 1:1.5. Backfill entire pipe excavation with borrow (indirect to 60276A).
	32203	9	C.Y.	Place 12 inches of crushed aggregate. Place 8 inches for structural section and 4 inches as leveling coarse.
	40401	5.40	Ton	Place 4 inches hot asphalt concrete, 15' top width.
	60403	1	Each	Install standpipe, see sheet 10.
2.77	20253	2	Each	Fall 2 danger trees, right.
2.81	20253	1	Each	Fall 1 danger tree, right.
2.91	20253	2	Each	Fall 2 danger trees, right.
2.98	20253	1	Each	Fall 1 danger tree, right.
3.37				Junction right, Road 1932.
3.79	20253	2	Each	Fall 2 danger trees, left.
4.22	43007	10.50	Ton	Skin patch 60' x 14' x 2" as marked on ground.
4.35	20253	2	Each	Fall 2 danger trees, left.
4.49	25101	2	C.Y.	Place class 4 riprap for splash apron, L 4' x W 3' x D 3'.
4.50	43007	1.00	Ton	Skin patch 25' x 3' x 2" as marked on ground.
4.51	20253	1	Each	Fall 1 danger tree, right.
	43007	4.90	Ton	Skin patch 35' x 11' x 2" as marked on ground.
4.52	20303	125	S.Y.	Cut and remove existing asphalt full width of road for 77', as marked on ground.
	26201	167	S.Y.	Repair roadway, method B. See sheet 10 for details.
	20404	50	C.Y.	Excavate below grade line as directed by CO. Hauling away unsuitable material and replace with suitable borrow.
	32203	45	C.Y.	Place 12 inches of crushed aggregate. Place 8 inches for structural section and 4 inches as leveling coarse.
	40401	27.00	Ton	Place 4 inches hot asphalt concrete, 14' top width.
4.63	20253	1	Each	Fall 1 danger tree, left.
				Junction left, Road 1927125.

RECONSTRUCTION SUMMARY ROAD 1927

Mile Point	Pay Item	Quantity	Unit	Work Description
4.71				Junction left, Road 1926576.
5.02	30359	6.16	Mile	Junction left, Road 1933. Pavement ends. Begin reconditioning of roadway. Grubbing & disposal of all vegetation & root masses within roadbed and in the ditch is required unless otherwise noted in the work description. Haul material from ditch reconditioning, slough and slide removal to disposal area. Scatter all logs and woody debris from top of cutbank to the opposite road shoulder outside clearing limits. Scarify minimum 1" below the depth of all potholes, washboards or surface irregularities.
5.13	20253	1	Each	Fall 1 danger tree, right.
5.48				Junction left, Road 1927101.
5.83	32203	19	C.Y.	Place spot rock 75' x 12' x 6".
5.92	32203	13	C.Y.	Place spot rock 50'x 12' x 6".
6.17				Junction left, Road 1927600.
6.38	20253	2	Each	Fall 2 danger trees, right.
6.84	60277	46	Foot	Install 21" x 15" squashed CMP. Catch basin contruction in indirect to 60277.
	32203	14	C.Y.	Place 8" depth crushed aggregate with a 14' top width, for 20 feet over culvert installation. Blend to adjacent surfaces and widths to provide smooth transition.
	20419	75	Foot	Construct outlet ditch.
7.69	20253	1	Each	Fall 1 danger tree, left.
7.92				Junction left, Road 1927051.
8.74				Junction right, Road 1927607.
9.38				Jack out inlet. Work is indirect to 30359.
10.00				Junction right, Road 1927608.
10.43	20253	1	Each	Fall 1 danger tree, left.
10.53	20253	1	Each	Fall 1 danger tree, right.
10.80	20253	1	Each	Fall 1 danger tree, right.
11.18	32203	250	C.Y.	Junction with Road 2618. Spot rock as marked by CO,
	20253	10	Each	Fall 10 danger trees as marked by CO. End Project

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Timber Lake Road

Maintenan

for the Moss!

Road Name		1927600	1927106	1933	1927104	1932105	1932	1927	1927
Road Number		0.87	0.10	1.25	0.25	0.10	2.26	5.50	4.99
Termini (Miles)									
Construction									
Reconstruction									
	Latest Revision Date								
Maintenance Specification	2003								
T-803	05/07	X	X	X	X	X	X	X	X
T-811	05/07			X				X	
T-813	05/07						X		
T-831	10/07	X	X	X	X	X	X	X	X
T-832	05/07	X	X	X	X	X	X	X	X
T-834	05/07	X	X	X	X	X	X	X	X
T-836	05/07						X		
T-838	05/07								
T-839	05/07	X	X		X	X			
T-851	05/07			X				X	
T-854	05/07						X		
T-891				X				X	

Timber Sale Road
Maintenance Specifications
for the Mossburn Timber Sale

Road Name	1926	1900							
Road Number	2.97	12.89							
Termini (Miles)									
Construction									
Reconstruction									
	Latest Revision Date								
Maintenance Specification	2003								
T-803	05/07	X							
T-811	05/07								
T-813	05/07								
T-831	10/07	X							
T-832	05/07	X							
T-834	05/07	X							
T-836	05/07								
T-838	05/07								
T-839	05/07								
T-851	05/07								
T-854	05/07								

Specification and Supplemental Specification List for
Moss Thin Timber Sale

Road Number			1926	1927		
Termini (Miles)			2.98	11.18		
Construction						
Reconstruction			X	X		
Standard Specifications	Date	Title	Specifications that are referenced by other specifications, but are applicable, are not listed below. "X" denotes applicable standard specs. or Forest Service Supplemental specifications. The supplementals shown on the specification list are physically attached.			
101-109	2003		X	X		
151	2003	Mobilization	X	X		
156	2003	Public Traffic	X	X		
157	2003	Soil Erosion Control		X		
202	2003	Additional Clearing and Grubbing	X	X		
203	2003	Removal of Structures and Obstructions		X		
204	2003	Excavation and Embankment		X		
251	2003	Riprap	X	X		
303	2003	Road Reconditioning	X	X		
404	2003	Minor Hot Asphalt Concrete		X		
602	2003	Culverts and Drains		X		
604	2003	Manhole, Inlets and Catch Basins		X		
625	2003	Turf Establishment	X	X		
Supplemental Specifications	Date	Title				
Preface	03/15/04	Preface	X	X		
101.01	01/22/09	Meaning of Terms	X	X		
101.01	01/22/09	Meaning of Terms	X	X		
101.03	06/16/06	Abbreviations	X	X		
101.04	03/29/07	Definitions	X	X		
101.04	11/06/07	Definitions	X	X		
102.00	02/16/05	Bid, Award, and Execution of	X	X		
103.00	02/16/05	Deletions	X	X		
104.00	06/16/06	Deletions	X	X		
104.03	01/22/09	Specifications and Drawings	X	X		
104.06	02/17/05	Use of Roads by Contractor	X	X		
104.07	02/17/05	Other Contracts	X	X		
105.02	01/18/05	Material Sources	X	X		
105.02	03/08/07	Contractor Provided Material Sources	X	X		
105.02	02/17/05	Government Provided Sources	X	X		
105.02	02/17/05	Government Provided Sources	X	X		
105.02	06/18/08	Designated Sources	X	X		
105.05	05/12/04	Use of Material Found in the Work	X	X		
106.01	07/31/07	Conformity with Contract	X	X		
106.07	05/11/04	Delete	X	X		
107.05	05/11/04	Responsibility for Damage Claims	X	X		
107.06	06/16/06	Contractor's Responsibility for Work.	X	X		
107.08	03/29/05	Sanitation, Health, and Safety	X	X		
107.09	06/16/06	Legal Relationship of the Parties	X	X		
108.00	02/16/05	Delete	X	X		
109.00	02/17/05	Deletions	X	X		
109.02	06/16/06	Measurement Terms and Definitions	X	X		

Specification and Supplemental Specification List for
Moss Thin Timber Sale

Road Number			1926	1927		
Termini (Miles)			2.98	11.18		
Construction						
Reconstruction			X	X		
Supplemental Specifications	Date	Title				
156.00	04/17/07	Public Traffic	X	X		
157.02	05/11/08	Materials	X	X		
170.00	03/26/07	Develop Water Supply and Watering		X		
201.00	08/05/09	Material	X	X		
201.01	02/18/05	Description	X	X		
201.04	03/03/05	Construction Requirements	X	X		
201.04	02/18/05	Clearing	X	X		
201.04	02/22/05	Clearing	X	X		
201.06	11/09/05	Disposal	X	X		
201.06	03/26/07	Disposal	X	X		
203.01	02/25/05	Description	X	X		
203.04	02/18/05	Removing Material	X	X		
203.05	02/18/05	Disposing of Material	X	X		
203.05	03/26/07	Disposing of Material	X	X		
204.00	05/28/08	Excavation and Embankment		X		
209.07	07/12/07	Dewatering		X		
209.10	10/23/07	Backfill		X		
209.11	02/24/05	Compacting		X		
251.03	08/05/09	Construction Requirements	X	X		
262.00	05/14/04	Complete Specification		X		
262.01	05/14/04	Sampling and Testing Requirements		X		
303.01	03/02/05	Work	X	X		
303.05	03/26/07	Roadbed Reconditioning		X		
303.06	04/04/07	Aggregate Surface Reconditioning		X		
303.10	03/26/07	Measurement	X	X		
322.00	10/14/11	Minor Aggregate Courses		X		
404.02	06/09/06	Composition of Mix (Job Mix Formula)		X		
404.03	06/09/07	Surface Preparation		X		
404.04	03/02/05	Weather Limitations	X	X		
404.06	03/02/05	Placing	X	X		
404.06	03/23/07	Placing	X	X		
404.07	03/02/05	Compacting (a)	X	X		
404.09	03/02/05	Acceptance		X		
430.00	07/27/07	Complete Specification	X	X		
602.03	10/02/08	General		X		
602.03	09/06/05	General		X		
602.03	03/17/10	General		X		
625.08	01/29/09	Mulching	X	X		
635.03	05/13/04	General	X	X		
703.05	08/14/09	Subbase, Base, Surface Course and Screened Aggregates		X		
704.02	04/24/08	Bedding Material		X		
704.03	03/26/07	Backfill Material		X		
714.03	03/26/07	Geogrids		X		